



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>ATTENTION</b>

Machine Id  
**SPIRAL ST7 SCP-197 (S/N TMG17URE0646)**  
 Component  
**Rear Differential**  
 Fluid  
**SHELL SPIRAX HD 85W140 (5 LTR)**

## RECOMMENDATION

We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

## WEAR

Moderate concentration of visible metal present. Gear wear is indicated.

## CONTAMINATION

There is no indication of any contamination in the oil.

## FLUID CONDITION

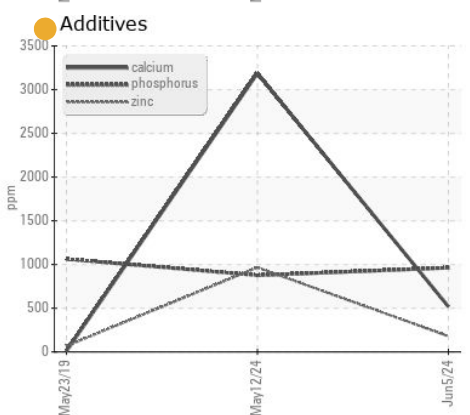
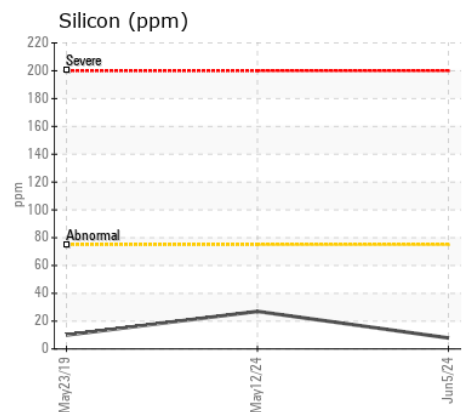
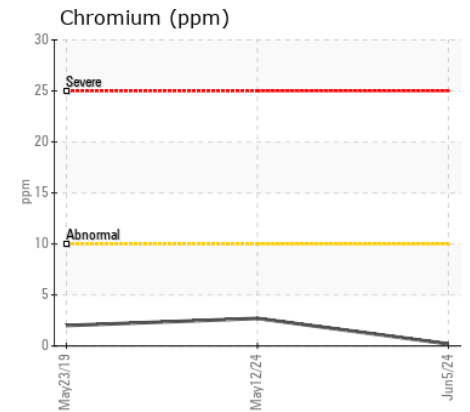
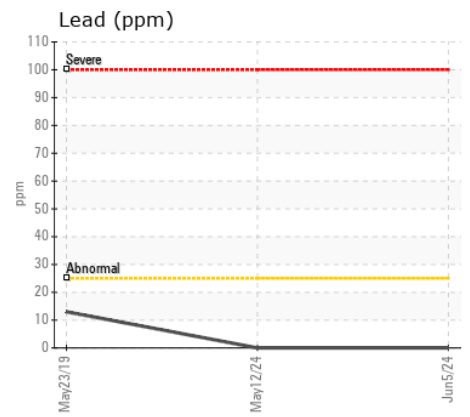
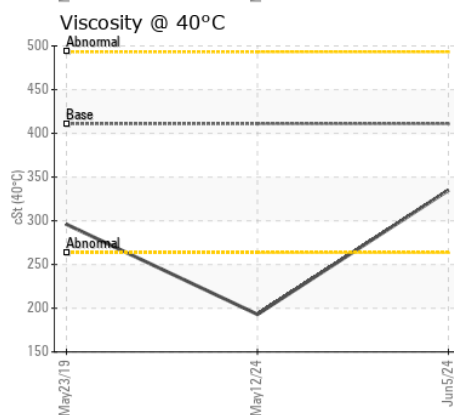
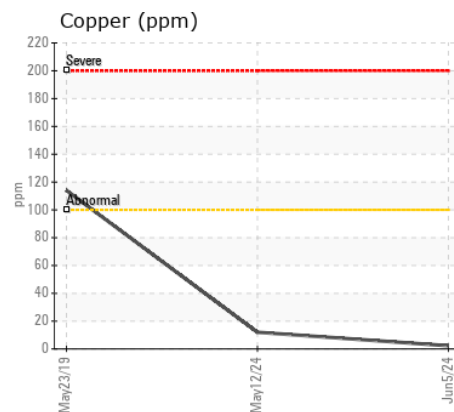
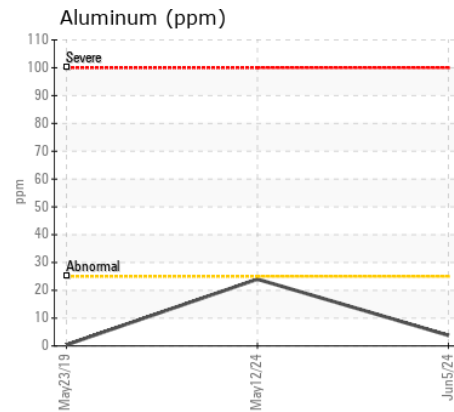
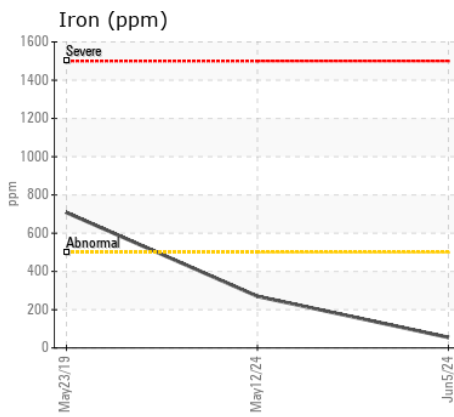
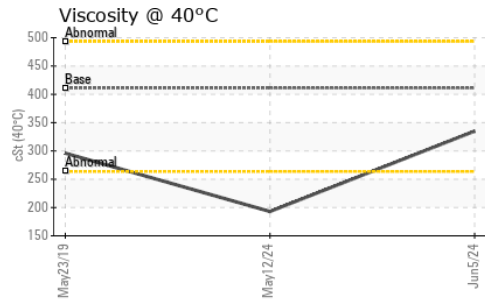
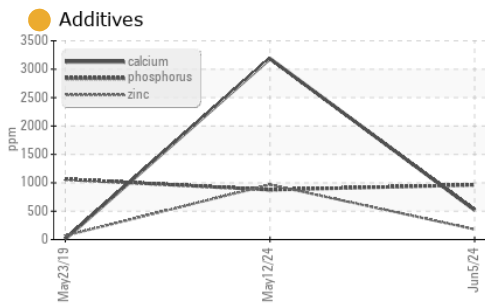
Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC</b>	WC0940452	WC113617
Sample Date		Client Info		<b>05 Jun 2024</b>	12 May 2024	23 May 2019
Machine Age	hrs	Client Info		<b>0</b>	1633	1405
Oil Age	hrs	Client Info		<b>0</b>	0	1000
Filter Age	hrs	Client Info		<b>0</b>	0	1000
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

Iron	ppm	ASTM D5185(m)	>500	<b>55</b>	270	708
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	3	2
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>4</b>	24	<1
Lead	ppm	ASTM D5185(m)	>25	<b>0</b>	0	13
Copper	ppm	ASTM D5185(m)	>100	<b>2</b>	12	114
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	5
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>▲ LTMOD</b>	LIGHT	VLITE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE

Silicon	ppm	ASTM D5185(m)	>75	<b>8</b>	27	10
Potassium	ppm	ASTM D5185(m)	>20	<b>5</b>	18	3
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>.2	<b>NEG</b>	NEG	NEG

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	2
Boron	ppm	ASTM D5185(m)		<b>132</b>	17	7
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	3	2
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	2	6
Magnesium	ppm	ASTM D5185(m)		<b>8</b>	13	2
Calcium	ppm	ASTM D5185(m)		<b>● 519</b>	3187	10
Phosphorus	ppm	ASTM D5185(m)		<b>963</b>	876	1062
Zinc	ppm	ASTM D5185(m)		<b>● 180</b>	966	67
Sulfur	ppm	ASTM D5185(m)		<b>20036</b>	11598	31240
Visc @ 40°C	cSt	ASTM D7279(m)	411	<b>335</b>	▲ 193	296



ISO 17025:2017  
Accredited  
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : WC

Lab Number : 02640326

Unique Number : 5789488

Test Package : MOB 1 ( Additional Tests: Bottom, BottomAnalysis, FilterPatch )

Received : 06 Jun 2024

Tested : 07 Jun 2024

Diagnosed : 07 Jun 2024 - Kevin Marson

1350 Government Rd. W, MACASSA COMPLEX

Kirkland Lake, ON

CA P2N 3J1

Contact: Mitch Lamontagne

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To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied.